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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/697,056

10/30/2003

Kenneth P. Hinckley

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SUITE 1400

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MINNEAPOLIS, MN 55402-3319

EXAMINER

ABDIN, SHAHEDA A

ART UNIT

PAPER NUMBER

2629

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/697,056	Applicant(s) HINCKLEY, KENNETH P.	
	Examiner Shaheda A. Abdin	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because **Fig. 10- 32 are used hand written labeling**. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "A computer readable medium" of claim 16 lacks antecedent basis in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 16: The preamble "a computer readable medium" recited in claim 16 is inconsistent with the preamble of independent claim 1. Thus the claim is indefinite.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 16 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In claim 16, line 1, "a computer readable medium storing computer executable instructions" is being recited: however, the instructions would reasonably be interpreted by one of ordinary skill in the art as software, per se. The claim does not positively recite the program code stored in the medium and executed by the machine. This subject matter is not limited to that which falls within a statutory category of invention because it

is limited to a process, machine, manufacture, or a composition of matter. Software is a function non-descriptive material and is non-statutory subject matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-4, 12-20, 22-24 and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu (US Pub No: 20050030255 A1) in view of Moehrie et al. (US Patent No: 6599130).

(1) Regarding claim 1:

Chiu teaches (in Fig. 3) method of coordinating resources (i.e. content) of mobile computing devices (i.e. laptop computers, notebook PCs, PDAs) to jointly execute tasks (i.e. by joining the received content on the plurality of displays and forming a modular display) [0017-0019], the method comprising:

receiving a first gesture input (i.e. receiving gesture from input device such as keyboard, mouse device, motion detector) at a first mobile computing device (e.g. Laptop computer) [0021], [0023];

receiving a second gesture input (i.e. receiving gesture from input device such as keyboard, mouse device, motion detector) at a second mobile computing device (e.g. Laptop computer) [0021] ;

determining (indicating or recognizing) whether the first and second gesture inputs form one of a plurality of different gesture types (e.g. move content, delete content, transpose content) [0021] and [0050] ;

and if it is determined that the first and second gesture inputs (i.e. input from the laptop computers) form the one of the plurality of different gesture types [0022], then combining resources (content) of the first and second mobile computing devices to jointly execute a particular task (i.e. forming modular display system) associated with the one of the plurality of different gesture types (note that each display (on the modular system display) associated with a particular gesture stack and content fed to a particular display through a stack; the displays communicate with each other within a peer-to-peer type system and each display is aware is neighboring display through the content propagation and forming a modular display) [0017] and [0051].

Note that Chiu teaches gestures but Chiu does not teaches Synchronous gestures.

However, Moehrie in the same field of endeavor teaches synchronous gestures (column 2, lines 37-49, column 3, lines 55-60 and column 4, lines 43-59, and Fig. 3).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of synchronous gesture as taught by Moehrie in to the computing devices of Chiu so that the plurality of synchronous

gesture could be determined. In this configuration the system would provide a reliable operation in the display devices with accurate data transmission (Moehrie, column 2, lines 30-49).

(2) Regarding claim 2:

Note that Moehrie teaches synchronous gesture and Chiu teaches wherein determining (recognizing) whether the first and second gesture inputs form the one of the plurality of different gesture types (e.g. transpose gesture) further comprises determining whether the first and second gesture inputs are synchronized in time ([0041], [0021] and [0050]).

(3) Regarding claim 3:

Note that Chiu teaches first and second gesture input and Moehrie teaches determining (recording) the first and second gesture inputs are synchronized in time further comprises determining whether the first and second gesture inputs are within a predetermined time period (i.e. session) (column 2, lines 37-49, column 3, lines 55-60 and column 4, lines 43-59, and Fig. 3). Thus the references of Chiu and Moehrie meet the claim limitations.

(4) Regarding claim 4:

Note that Moehrie teaches Synchronous gesture and Chiu teaches determining (recognizing) whether the first and second gesture inputs form the one of the plurality of different gesture types further comprises determining whether the first and second

gesture inputs are of corresponding types (note that the gesture input will cause content to be presented in the particular display and initiate propagation of content along the configured direction in neighboring display which is interpreted the gestures are corresponding types) (see the abstract, [0021] and [0017]).

(5) Regarding claim 12:

Chiu teaches combining resources (i.e. content) of the first and second mobile computing devices (i.e. laptops) to jointly execute the task associated with the one of the plurality of different synchronous gesture types (e.g. move content, delete content, transpose content, flick gesture) [0021] and [0050] ; further comprises combining resources (i.e. content) of the first and second mobile computing devices to share display real estate (i.e. displays or tiles of the modular display device) ([0017] and [0051]).

(6) Regarding claim 13:

Chiu t teaches combining resources (e.g. image or video contents) of the first and second mobile computing devices (e.g. laptops) to share display real estate (displays in the modular system) further comprises combining resources (image or video contents) of the first and second mobile computing devices to jointly display the same image ([0020]).

(7) Regarding claim 14:

Chiu teaches combining resources of the first and second mobile computing devices (i.e. laptops) to share display real estate (i.e. displays in the modular system) further comprises combining resources (i.e. image or video contents) of the first and second mobile computing devices (laptops) to each display different portions of a single image (note that each display (on the modular system display) associated with a particular gesture stack and content fed to a particular display through a stack; the displays communicate with each other within a peer-to-peer type system and each display is aware of neighboring display through the content propagation and forming a modular display, therefore, for the video or image content different portions of a single image will form on each display of modular system) [0017], [0020] and [0051].

(8) Regarding claim 15:

Chiu teaches combining resources of the first and second mobile computing devices (i.e. laptops) to jointly execute the task associated with the one of the plurality of different synchronous gesture types (e.g. move content, delete content, transpose content, flick gesture) further comprises combining resources of the first and second mobile computing devices to transfer data from the first mobile computing device to the second mobile computing device ([0019]-[0021]).

(9) Regarding claim 16:

Chiu teaches a computer readable medium storing computer executable instructions for implementing the steps ([0056-0058]).

(10) Regarding claim 17:

Claim 17 is similar to claim 1. The limitation of claim 17 is differed from claim 1 is processing circuitry and Chiu teaches this limitation (see[0056-0058]).

(11) Regarding claim 18:

Chiu teaches a network communicatively (peer-to-peer connection) coupling the first and second mobile computing devices (i.e. laptops)([0019-0020]).

(12) Regarding claim 19:

Chiu teaches the processing circuitry comprises processing circuitry (i.e. processor) of one or both of the first and second mobile computing devices ([0055-0058]).

(13) Regarding claim 20:

Chiu teaches wherein the processing circuitry comprises processing circuitry of the network [0019] and [0055-0058].

(14) Regarding claims 22-24:

Note that Claims 22 - 24 are similar to claims 2-4 respectively. The only limitation of claims 22-24 differed from claims 2-4 is processing circuitry and Chiu teaches this limitation (see [0056-0058]).

(15) Regarding claims 32-35:

Note that Claims 32-35 are similar to claims 12-15 respectively. The only limitation of claims 32-35 is differed from claims 12-15 processing circuitry and Chiu teaches this limitation (see [0056-0058]).

9. Claims 5 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu inview of Moehrie as applied to claim 4 above, and further in view of Trantow (US Pub. No: 20030222917 A1).

(1) Regarding claim 5:

Note that Chiu teaches receiving the first gesture input and second gesture input but both Chiu and Moehrie do not teach gesture input is an output of an accelerometer.

However, Trantow in the same field of endeavor teaches the gesture input is an output of an accelerometer (i.e. 32) of a computing device (10) ([0023]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of gesture input as taught by Trantow in to the input devices of Chiu as modified by Moehrie so that first gesture input could be an output of an accelerometer of a first mobile computing device and second gesture input could be an output of an accelerometer of a second mobile computing device. In

this configuration the system would provide a reliable data transmission in the display device (Trantow, [0023]).

(2) Regarding claim 25:

Note that Claim 25 is similar to claim 5. The only limitation of claim 25 is differed from claims 5 processing circuitry and Chiu teaches this limitation (see [0056-0058]).

10. Claims 8-10, 21 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of Moehrie as applied to claim 4 above, and further in view of Tran et al. US Patent No: 6157935).

(1) Regarding claim 8:

Note that Chiu teaches receiving the first gesture input and second gesture input on the first and second mobile computing devices but both Chiu and Trantow do not teach receiving an input which is indicative of proximity of a stylus to a screen mobile device.

However, Tran in the same field of endeavor teaches receiving an input which is indicative (e.g. display at 35) of proximity of a stylus (i.e. 33) to a screen mobile device (column 10, lines 25-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of proximity of a stylus as taught by Tran into the display system of Chiu as modified by Moehrie so that the first and second gestures inputs could be received an input individually which is indicative of

aproximity of a stylus to a screen of the first and second mobile computing devices. In this configuration the system would provide a high quality image in the display device (Tran, column 3, lines 26-33).

(2) Regarding claim 9:

Note that Chiu teaches first and second mobile computing devices and Tran teaches wherein proximity of the stylus (i.e. position of the tip of the stylus) to the computing device include contact of the stylus with mobile computing devices (column 10, lines 25-45). Thus the references meet the claim limitations.

(3) Regarding claim 10:

Note that Moehrie teaches synchronous gesture, Chiu teaches the first and second gesture inputs and Tran teaches gestures are indicative (i.e. by sensor) of whether a stitch type (i.e. the pressure of the pen tip) gesture has been formed (column 10, lines 25-45). Thus the references of Chiu, Moehrie and Tran meets the claim limitations.

(4) Regarding claim 21:

Note that Chiu does not teach the proximity server.

However, Tran teaches the proximity server (i.e. CPU 20) (column 10, lines 25-45). Thus the references of Chiu, Moehire meet the claim limitations.

(5) Regarding claim 28-30:

Note that Claims 28 - 30 are similar to claims 8-10 respectively. The only limitation of claims 28-30 is differed from claims 8-10 processing circuitry and Chiu teaches this limitation (see [0056-0058]).

11. Claims 6-7 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu, Moehrie and Trantow as applied to claim 5 above, and further in view of Kinawi (US Patent No: 6545669 B1).

(1) Regarding claim 6:

Trantow teaches the accelerometer and Chiu teaches first and second mobile computing devices are indicative (characterized according to the direction and speed) of whether the first and second mobile computing devices have been bumped (i.e. flick) [0021], but Chiu, Moehrie and Trantow do not teach computing devices bump against one another, thereby forming a bump type synchronous gesture.

However, Kinawi in the same field of endeavor teaches computing devices (i.e. two screens 11 and 12) bump against one another (note that screens are folding portable computer and the boundary adjacent the discontinuity 13 is used to trigger cross-discontinuity movement 42), thereby forming a bump type gesture (i.e. accidental signal which is exceeded the threshold velocity) (column 4, lines 44-67, column 10, lines 1-19).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of indicative a bump type gesture as taught by Kinawi in to the display system of Chiu as modified by Moehrie, and Trantow so that first and second computing devices could be indicative of bumped gesture when first and second computing devices being bumped against one another , thereby forming a bump type synchronous gesture. In this configuration the system would have compact and less expensive display device with high quality data transmission (Kinawi, column 4, lines 44-55).

(2) Regarding claim 7:

Chiu teaches a method that receiving a touch sensor (e.g. UV sensor, motion detector) output from the first mobile computing device indicative of whether the first mobile computing device is being held during a potential bump type synchronous gesture (i.e. Flick) [0021]; and wherein determining (detecting by the speed of the gesture) whether the first and second gesture inputs form the bump type synchronous gesture (i.e. flick) comprises determining that the first and second gesture inputs form the bump type gesture (i.e. flick type gesture) only if the touch sensor output indicates that the first mobile computing device is being held (i.e. finger on computing device) (note that gesture is made with flick which is consisting of moving a finger from left to right on screen and the propagation from left to right which is indicating by touch sensor or detector and).

(3) Regarding claim 26-27:

Note that Claims 26-27 are similar to claims 6-7 respectively. The only limitation of claims 23-35 differed from claims 3-15 is processing circuitry and Chiu teaches this limitation (see [0056-0058]).

12. Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu in view of Moehrie and Tran as applied to claim 10 above, and further in view of Kinawi.

(4) Regarding claim 11:

Note that Chiu teaches the first and second gesture inputs but Chiu, Moehrie and Tran do not teach scribble type synchronous gesture.

However, Kinawi in the same field of endeavor teaches scribble type synchronous gesture (i.e. 120 a, Fig. 14 a) (column 11, lines 8-45).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the method of scribble gesture as taught by Kinawi in to the display system of Chiu as modified by Moehrie and Tran so that the first and second gesture inputs could be formed by indicating with scribble type synchronous gesture. In this configuration the system would have compact and less expensive display device with high quality data transmission (Kinawi, column 4, lines 44-55).

(5) Regarding claim 31:

Note that Claim 31 is similar to claim 11. The only limitation of claim 31 differed from claim 11 is processing circuitry and Chiu teaches this limitation (see [0056-0058]).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wang et al. (US Patent No: 7200559) discloses semantic object synchronous understanding implemented with speech application language tags.

Inquiry

14. Any inquiry concerning this communication should be directed to the examiner at (571) 270-1673 Monday- Friday 7:30 AM to 5:00 PM EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen, can be reached at (571) 272-7772.

Information regarding the status on an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9799 (IN USA OR CANADA) or 571-272-1000.

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Any response to this action should be mailed to:

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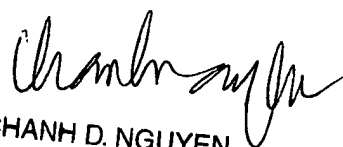
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Shaheda Abdin

01/18/2008

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